

Appl. No. 10/506,825
Amdt. dated June 29, 2006
Reply to Office action of March 29, 2006

Amendments to the Drawings:

The attached sheets of formal drawings include changes to Figs. 2, 3 and 5. The changes to FIGS. 2, 3 and 5 include the addition of reference number 33 in FIG. 2; the addition of reference numbers 16a, 17a, 17b, 31, 32, and 34 in FIG. 3; and the addition of reference number 112 in FIG. 5. No changes have been made to FIGS. 1 or 4. The three formal sheets of drawings contain FIGS. 1-5 and are provided to replace the originally filed sheets containing FIGS. 1-5.

Attachment: Three (3) Replacement Sheet

REMARKS/ARGUMENTS

Claims 1-19 are presently pending in the application as set forth in the Preliminary Amendment A filed on September 7, 2004 with the filing of this application.

In this amendment, Claims 3, 8, 9, 10, 11, 13, 15, 16, 18, 19 have been amended.

Claims 1, 2 and 4-7 have been canceled.

Claims 20-23 have been added.

Claims 12 and 14 remain unchanged.

As discussed below, the claims as presented herein are believed to be allowable over the art of record. Reconsideration of the Application and issuance of a Notice of Allowability are respectfully requested.

Initially, Applicant notes that the specification has been amended to provide further description of the pivot pin 16. The additional description describes what is evident from the drawings, and in particular, FIGS. 2 and 3 of the drawings. This description provides verbal support in the specification for the new Claims 20-23. No new matter has been added to the application.

Applicant also notes that the dependency of Claims 13, 15, 16, 18, and 19 have been amended such that these claims now depend directly from independent Claim 11. Previously they depended from Claim 12. The subject matter of the claims, however, has not been amended.

Objections To The Specification And Drawings

Per the Examiner's request, the specification has been amended at page 2, line 27 to replace "33" with "23". Additionally, a substitute sheet of drawings is filed herewith to correct FIG. 5 to include reference number 112.

Rejections Under §112

The Examiner noted that several of the claims did not have proper antecedent basis for some of the elements set forth in the Claims. Claim 1 has been canceled and new Claim 20 has been inserted in its stead. Claims 2-10 have been amended to depend from new Claim 20. Applicant believes that the elements of Claims 3 and 8-10 all find antecedent basis in the claims from which they depend. Withdrawal of this rejection to the Claims is respectfully requested.

Rejections Under 35 U.S.C. §103

Claims 1-8 and 11-19 were rejected under §103 as being unpatentable over Katzensteiner (De 4141793) in view of Yasui et al. (US 4523862). The Examiner asserted that Katzensteiner discloses a steering axle of a vehicle including a pivot pin with tapered rolling elements retained in a cage. As noted by the Examiner, Katzensteiner does not disclose that the pivot pin includes a groove or that the cage includes pins which engage the groove. The Examiner, however, asserts that the bearing/cage assembly of Katzensteiner could have been modified by one skilled in the art in light of Yasui, which shows a cage having pins received in a groove.

In order to make a claim obvious under 35 U.S.C. §103, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure." MPEP § 2143 (emphasis added). "The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination". Further, "a statement that modifications of the prior art to meet the claimed invention would have been 'well within the ordinary skill of the art at the time the claimed invention was made' because the references relied upon teach that all aspects of the claimed invention were individually known in the art is not sufficient to establish a *prima facie* case of obviousness without some objective reason to combine the teachings of the references." MPEP §2143.01 (emphasis in original).

As indicated by the excerpts from the MPEP cited above, establishing a *prima facie* case of obviousness requires that "the prior art references when combined must teach or suggest all of the claim limitations" and that there be a suggestion to modify the references as suggested by the Examiner.

Claim 1 has been canceled and Claim 20 has been inserted in its stead. Independent Claim 11 has been amended. The claims which originally depended from Claim 1 have been amended to depend from New Claim 20. Claims 20 and 11 both provide that the pivot pin comprises a pivot pin body which is adapted to receive a sensor. Further, Claims 20 and 11 provide that the pivot pin body comprises (1) an integrally formed, radially extending tapered inner race defining a circumferentially extending tapered inner raceway; (2) a rib at the large diameter end of the inner race; (3) a surface extending axially from the rib; (4) a groove on the surface behind said rib; and (5) a seal positioned on the surface behind the groove.

Here, Katzensteiner and Yasui et al., whether considered individually or in combination, do not teach all the elements as set forth in Claims 20 and 11. At a minimum, they do not teach, disclose or suggest that the pivot pin body be adapted to receive a sensor or that a seal is positioned axially behind the groove. Nor do they teach, disclose or suggest that the cage projections which are received in the groove be resilient.

For at least these three reasons, Katzensteiner and Yasui et al, whether considered individually or in combination, cannot be used to assert that either Claim 20 or 11 is obvious under 35 U.S.C. §103. Hence, Claims 20 and 11 and the claims that depend therefrom are all believed to be allowable over katzensteiner and Yasui et al. Withdrawal of this rejection is respectfully requested.

The Examiner rejected Claims 9 and 10 under 35 U.S.C. §103 as being obvious over Katzensteiner in view of Yasui et al, and further in view of Wilks et al. (US 5366042). Wilks et al. discloses a king pin 6 with an originator unit 10. The originator unit 10 includes webs 20 and 21 which define a groove 19 therebetween. The webs 20 and 21, according to Wilks et al., have four leading edges. As the king pin is turned, the position of the leading edges is detected by a pair of sensors (11, 12) to determine the angle of rotation of the king pin.

Applicant notes that the addition of Wilks et al. to Katzensteiner and Yasui still fails to teach at least the missing elements from Claims 20 and 11. In particular, Wilks et al. does not disclose, teach or suggest the seal or the cage as set forth in Claims 20 and 11. Inasmuch as Katzensteiner, Yasui and Wilks fail to disclose, teach or suggest all the elements of Claim 20, the combination of Katzensteiner, Yasui and Wilks does not teach or suggest the subject matter of Claims 8 or 9. Thus, Claims 8 and 9 are not made obvious by the noted combination of references.

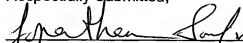
New Claims 21-23 have also been added. Claims 21 -23 provide further structural elements of the pivot pin as can be seen in FIGS. 2 and 3. As noted above, the specification was amended at page 2 to provide for verbal support for new Claims 21-23. Because the additional description and the new claims only include what is evident from the drawings, the added description and the new claims do not add new matter to the application.

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In view of the foregoing, Claims 3, and 8-23 are believed to be in condition for allowance. A Notice of Allowability with respect to these claims is thus respectfully requested.

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Respectfully Submitted,


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